

Appl. No. 09/833,098
Amdt. dated
Reply to Office Action of October 6, 2003

AMENDMENTS TO THE CLAIMS

Claims 1-21 were canceled and new claims 22-43 were presented in the Preliminary Amendment.

Please cancel claims 22-24 without prejudice, and amend claims 25, 27, 29, 32, 34, 42, and 43 as set forth in the following listing of the claims.

Claims 1-24 (canceled)

25. (currently amended) ~~The An~~
overvoltage protection device for an electronic apparatus having
a plug-in device which has at least one plug-in element and is
mountable on a housing of the electronic apparatus, wherein a
protection board (9) having a spark gap to dissipate overvoltages
is arranged on the plug-in element (3); wherein the protection
board (9) forms the spark gap together with the plug-in element
(3); wherein the protection board (9) has an electrically
conductive structure (19, 22) forming the spark gap; as claimed
~~in claim 24, wherein~~ the electrically conductive structure of the
protection board (9) has a form of a conductor track, with a zone
(27, 28; 31) of the conductor track which is free of solder
resist being arranged in a vicinity of an opening (13)
accommodating a plug-in element (5).

26. (previously presented) The overvoltage protection device as claimed in claim 25, wherein the zone (31) which is free of the solder resist is formed in a solder land (30), which surrounds the opening (13), in the solder resist (29).

27. (currently amended) ~~The An~~ overvoltage protection device for an electronic apparatus having a plug-in device which has at least one plug-in element and is mountable on a housing of the electronic apparatus, wherein a protection board (9) having a spark gap to dissipate overvoltages is arranged on the plug-in element (3); wherein the protection board (9) forms the spark gap together with the plug-in element (3); wherein the protection board (9) has an electrically conductive structure (19, 22) forming the spark gap; as claimed in claim 24, wherein the electrically conductive structure has a form of a recess which is free of solder resist, and/or an opening (27, 28) through the protection board (9).

28. (previously presented) The overvoltage protection device as claimed in claim 27, wherein the recess and/or the opening (27, 28) which is free of the solder resist is arranged in a vicinity of a plug pin (5) to be protected.

29. (currently amended) ~~The~~ An overvoltage protection device for an electronic apparatus having a plug-in device which has at least one plug-in element and is mountable on a housing of the electronic apparatus, wherein a protection board (9) having a spark gap to dissipate

overvoltages is arranged on the plug-in element (3); as claimed
in claim 22, wherein the protection board (9) has at least two
conductor tracks (19, 20; 21, 22) which are located one above
another, are at different potentials, and are routed to a board
edge (23), with a thickness of an insulation layer (24, 25) which
is arranged between the two conductor tracks (19, 20; 21, 22)
being selected such that the spark gap is formed by uninsulated
ends of the two conductor tracks (19, 20; 21, 22) at the board
edge (23).

30. (previously presented) The
overvoltage protection device as claimed in claim 29, **wherein** a
shape of the conductor tracks (19, 20, 21, 22) which are routed
to the board edge (23) is selected such that conductor tips (34)
are produced at the board edge (23).

31. (previously presented) The
overvoltage protection device as claimed in claim 29, **wherein** the
board edge (23) is formed by at least one opening (14) through
the protection board (9).

32. (currently amended) ~~The An~~
overvoltage protection device for an electronic apparatus having
a plug-in device which has at least one plug-in element and is
mountable on a housing of the electronic apparatus, wherein a
protection board (9) having a spark gap to dissipate overvoltages
is arranged on the plug-in element (3); as claimed in claim 22,
wherein the protection board (9) is fitted with a suppression
device (10; 15, 16) to improve electromagnetic sensitivity of the
electronic apparatus (1).

33. (previously presented) The overvoltage protection device as claimed in claim 32, wherein the suppression device (10) is a varistor.

34. (currently amended) The overvoltage protection device as claimed in claim 32 ~~31~~, wherein ~~a the~~ suppression device ~~is~~ comprises a capacitor (10) which is arranged outside the housing (1, 2) of the electronic apparatus (1) and is electrically connected firstly to the plug-in element (5) of the plug-in device (3), and secondly to potential of the electrically conductive housing (1, 2).

35. (previously presented) The overvoltage protection device as claimed in claim 34, wherein a first capacitor plate (16) of the capacitor (10) is arranged in or on the plug-in device (3).

36. (previously presented) The overvoltage protection device as claimed in claim 35, wherein the first capacitor plate (16) is formed from the plug-in element (5).

37. (previously presented) The overvoltage protection device as claimed in claim 35, wherein the first capacitor plate (16) is formed by one of the conductor tracks (15) which are arranged on the protection board (9) and are in a form of conductor surfaces, said conductor track (15) is arranged alongside the plug-in element (5) and is electrically

connected to said element, and wherein the electrically formed housing (1), which is connected to ground, of the electronic apparatus is used as a second capacitor plate.

38. (previously presented) The overvoltage protection device as claimed in claim 37, wherein a second conductor surface (18) which is arranged on the protection board (9) and is electrically connected to the housing (1, 2) forms a second capacitor surface with the housing (1, 2).

39. (previously presented) The overvoltage protection device as claimed in claim 38, wherein the electrical connection between the second conductor surface (15) of the protection board (9) and the housing (1, 2) is produced by at least one fastening means (4) for holding the protection board (9) and/or the plug-in device (3) on the housing (1, 2).

40. (previously presented) The overvoltage protection device as claimed in claim 38, wherein insulation (17) is arranged between the second conductor surface (18), which is formed on a surface of the protection board, and the outside of the housing (1, 2).

41. (previously presented) The overvoltage protection device as claimed in claim 38, wherein the conductor surface (16) surrounding the plug-in element (5) is arranged on the protection board (9) such that it is placable and made contactable on a side of the plug-in device (3) facing the housing (1).

42. (currently amended) ~~A suppression~~
The overvoltage protection device as claimed in claim ~~34~~ 27,
wherein a first capacitor plate (16) of said capacitor and of
additional capacitors of said suppression device is provided for
each plug-in element (5), and each of the first capacitor plates
(16) is electrically isolated from one another.

43. (currently amended) ~~A suppression~~
The overvoltage protection device as claimed in claim ~~32~~ 29,
wherein the suppression device has a plurality of capacitors of
which a first capacitor plate (16) of a respective capacitor is
provided for each plug-in element (5), and each of the first
capacitor plates (16) is electrically isolated from one another.